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10/511,815	10/19/2004	Toni Kopra	KOLS.152US	8824
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Hollingsworth & Funk, LLC Suite 125 8009 34th Avenue South Minneapolis, MN 55425		EXAMINER LU, ZHIYU		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/511,815

Applicant(s)

KOPRA ET AL.

Examiner

Zhiyu Lu

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/29/2007 have been fully considered but they are not persuasive.

Regarding rejection on claim 11, applicant argued that neither the index data nor the program data corresponds to the claimed content item because it is not attached to a broadcast media stream as claimed.

However, the Examiner does not agree. Nakatsuyama's invention is about a media broadcast system. Both program data and index data are broadcast streams that either of them can be used for synchronization (column 7 lines 45-65), which indicates that both broadcasting program data and index data have a broadcasting time line that is synchronized with the internal time.

In term of index data, the one or more content items attached are considered as program time, program tuning information, and/or program video sample (column 6 lines 11-25) since claim 11 does not define what "content item" is. It is impossible for a user to know what program is broadcasted at what time without actually checking out the receiving index data. Nakatsuyama states that index data is "illustrative" and updated from time to time (column 6 line 13, column 7 lines 10-18, e.g. displaying content items/program information are different from broadcasting time to broadcasting time because of updates, and it is certainly synchronized of the internal time). So, index data is presented to user at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system.

Furthermore, the program data is also considered as the broadcast media stream that carries one or more content items of audio, video, and/or text. In a streaming media system, it is impossible for a user terminal to receive certain program at certain time without having certain content item attached to the broadcasting time line of the broadcast media stream distributed by the broadcasting system and transmitted by the radio system (Fig. 1, column 2 lines 1-30, column 10 lines 1-50). So, the broadcasting system of Nakatsuyama does attach one or more content items to a broadcasting time line of the broadcast media stream. And the user terminal of Nakatsuyama does present the received content item in the user terminal during the presentation of the broadcasted broadcast media stream and at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system.

Thus, the rejection on claim 11 is proper and maintained. The rejections to rest of the claims are proper and maintained as well.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6, 8-14, 16, 18-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakatsuyama (US Patent#6658231).

Regarding claim 11, Nakatsuyama anticipates a media system including a broadcasting system configured to broadcast a broadcast media stream, the media system comprising:

a radio system (34 of Fig. 1) communicating with the broadcasting system (12 of Fig. 1) and one or more user terminals (40 of Fig. 1).

the broadcasting system is further configured to attach one or more content items to a broadcasting time line of the broadcast media stream in the broadcasting system (Fig. 1, column 7 lines 57-65, column 10 lines 20-29);

the user terminal is configured to synchronize an internal time of the user terminal with the internal time of the broadcasting system (Fig. 1, column 7 lines 45-53);

the radio system is configured to send the content item attached to the broadcasting time line of the broadcast media stream to the user terminal (36 of Fig. 1, column 7 lines 57-65); and

the user terminal is further configured to present the received content item in the user terminal during the presentation of the broadcasted broadcast media stream and at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 2 lines 11-30).

Regarding claim 1, Nakatsuyama anticipates a method of providing one or more content items to at least one user terminal of a radio system, the content item being related to a broadcast media stream, as explained in response to claim 11 above.

Regarding claim 21, Nakatsuyama anticipates a user terminal of a radio system, wherein the user terminal (40 of Figs. 1-2) is configured to:

synchronize the internal time of the user terminal with the internal time of a broadcasting system (column 7 lines 45-53);

receiving one or more content items through the radio system which content items are attached to a broadcast media stream of the broadcasting system (column 7 lines 57-65); and

present the received content items attached to the broadcast media stream during the presentation of the broadcasted broadcast media stream and at a given moment in time that is determined based on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 8 lines 35-63).

Regarding claims 2, 12 and 22, Nakatsuyama anticipates the limitations of claims 1, 11 and 21.

Nakatsuyama anticipates further comprising sending synchronization data to the user terminal for synchronizing the internal time of the user terminal with the internal time of the broadcasting system and synchronizing the internal time of the user terminal based on the received synchronization data (Fig. 1, column 7 lines 45-53).

Regarding claims 3 and 13, Nakatsuyama anticipates the limitations of claims 1 and 11.

Nakatsuyama anticipates further comprising synchronizing the internal time of the radio system with the internal time of the broadcast system (inherent in Fig. 5 and column 11 line 49 to column 12 line 50) and sending the synchronization data from the radio system to the user terminal (column 13 lines 38-45).

Note that time synchronization data is sent via radio system to terminal and program data is broadcasted via broadcast system according to the same time data, furthermore both systems are within the same main system, internal time synchronization is thus inherited.

Regarding claims 4, 14 and 23, Nakatsuyama anticipates the limitations of claims 2, 12 and 22. Nakatsuyama anticipates further comprising sending synchronization data with the broadcast media stream broadcasted by the broadcasting system to the user terminal (column 13 lines 38-45).

Regarding claims 6, 16 and 24, Nakatsuyama anticipates the limitations of claims 1, 11 and 21. Nakatsuyama anticipates synchronization of the internal time of the user terminal with the internal time of the broadcasting system comprises executing a synchronization algorithm in the user terminal (Figs. 1 and 5, column 7 lines 45-53, column 13 lines 38-45).

Regarding claims 8 and 18, Nakatsuyama anticipates the limitations of claims 1 and 11. Nakatsuyama anticipates the content item comprises one or more of the following: a text, an audio, a video, an image, a multimedia presentation, and a series of these or any combination thereof (column 9 lines 48-67, column 7 lines 7-17).

Regarding claims 9, 19 and 26, Nakatsuyama anticipates the limitations of claims 1, 11 and 21.

Nakatsuyama anticipates the content item comprises an object identification of an object and the method further comprises sending a transaction signal with the object identification from the user terminal to the radio system and delivering the object of the object identification to the user terminal through the radio system (column 12 lines 18-50).

Regarding claims 10 and 20, Nakatsuyama anticipates the limitations of claims 1 and 11.

Nakatsuyama anticipates further comprising attaching the content item to the broadcast media stream by defining the content item's availability to the presentation prior, during and after the broadcast of the broadcast media stream (column 7 lines 57-65, column 9 lines 12-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Lake et al. (US Patent#6975835).

Regarding claims 5 and 15, Nakatsuyama teaches the limitations of claims 4 and 14.

But, Nakatsuyama does not expressly disclose further comprising using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system.

Lake et al. teach using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system (column 1 lines 35-40, column 2 lines 35-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using a RDS for sending the synchronization data from the broadcasting system of Lake et al. into the method and media system of Nakatsuyama, in order to utilize national broadcasting standard for sending digital information.

4. Claims 7, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Kelly et al. (US2002/0105976).

Regarding claims 7, 17 and 25, Nakatsuyama teaches the limitations of claims 6, 16 and 24.

But, Nakatsuyama does not expressly disclose the synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals; calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the internal time of the user terminal based on the calculated difference between the internal times.

Kelly et al. teach a synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals; calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the

internal time of the user terminal based on the calculated difference between the internal times (paragraphs 0025-0026).

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the synchronization algorithm of Kelly et al. into the method and media system of Nakatsuyama, in order to provide accurate time synchronization.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zhiyu Lu
January 16, 2008




NAY MAUNG
SUPERVISORY PATENT EXAMINER